PlansNOW®
www.plansnow.com

THANK YOU!

You have successfully downloaded your **FREE** PlansNOW.com woodworking article.

- Go to Page 1
- Go to PlansNOW **and save 20% with coupon code M E A S U R E**

SAVE 20% **As a PlansNOW member, you'll SAVE 20% on every downloadable plan we offer!**

Bedroom Furniture
Beds, dressers, armoires, cribs, cradles, and more!

Shop Jigs & Techniques
Get the most from your tools with easy-to-build shop jigs.

Craftsman Furniture
Build the same distinctive features from the early1900s.

Workbenches & Tool Stands
Sound woodworking starts with a solid workbench.

Playhouses & Sheds
Everything you'll need for a kid's summer entertainment.

Home Improvement
Save hundreds of dollars in remodeling when you DIY.

Gazebos & Arbors
Make outdoor living more enjoyable this summer!

Outdoor Furniture
Easy-to-build projects using a minimum of power tools.

PlansNOW®
www.PlansNOW.com

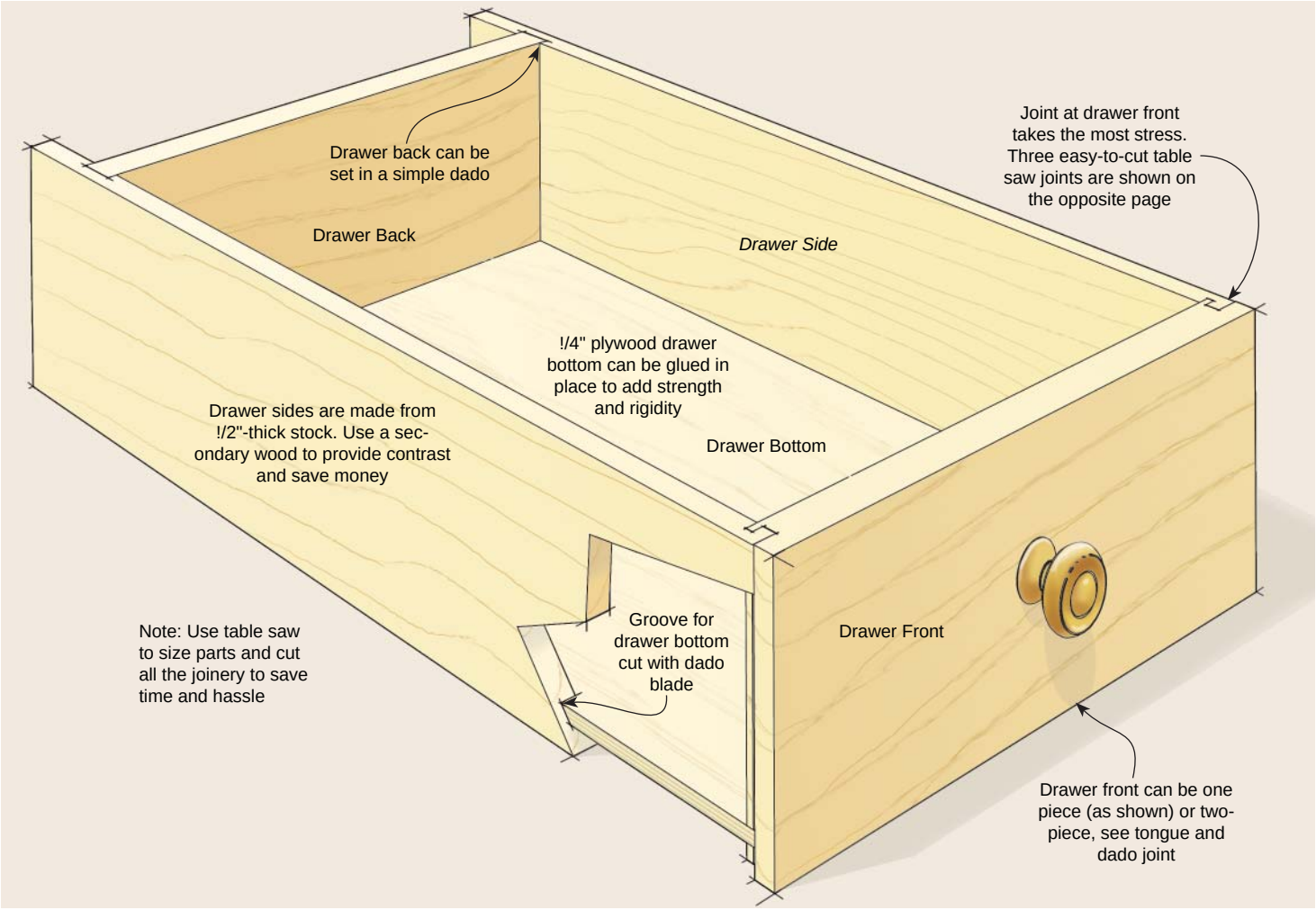

Drawer back can be set in a simple dado
Drawer Back
Drawer Side
Joint at drawer front takes the most stress. Three easy-to-cut table saw joints are shown on the opposite page
!/4" plywood drawer bottom can be glued in place to add strength and rigidity
Drawer sides are made from !/2"-thick stock. Use a sec-ondary wood to provide contrast and save money
Drawer Bottom
Note: Use table saw to size parts and cut all the joinery to save time and hassle
Groove for drawer bottom cut with dado blade
Drawer Front
Drawer front can be one piece (as shown) or two-piece, see tongue and dado joint

Table Saw Drawer Joinery

At first glance, a drawer seems really simple to build — it's just an open-topped box. But when you think about it, there's a lot going on.

First, it needs to nest inside the cabinet. The joints have to be strong to survive opening and closing countless times. And the construction must support a lot of weight.

But that doesn't mean that building drawers has to be complicated. One sure-fire way to simplify the process is to do the whole job start to finish at the table saw.

SIZING PARTS. To see how you can put your table saw to work building drawers, it helps to take a quick look at how a drawer is assembled. It goes without saying that a table saw is the perfect tool for sizing parts. But you can also use it to cut all the joinery as well.

JOINERY. The next step is putting those pieces together. In the drawing above, you can see the joints in a drawer range from basic grooves and dadoes to heavy-duty joints that are needed to hold the drawer front securely in place.

The most straightforward joint in a drawer is the one that holds the drawer bottom. The bottom is captured in a groove cut in all the other drawer parts. To make this, you can sneak up on the fit of the undersized plywood by taking a few passes with a regular blade.

The next place to take a look at is the drawer back. Since this joint doesn't face a lot of stress, you can take a simple approach. An easy method is to set up a dado blade in your saw and cut a dado in each drawer side to hold the back.

FRONT JOINT. The joint that takes the most stress in the drawer is the one that attaches the front to the drawer sides. Because the joint you use is so critical to the overall strength of the drawer, it deserves a little more attention.

©2006 August Home Publishing Company
All rights reserved

DRAWER FRONT JOINTS

When it comes to choosing a joint for the front of a drawer, you don't need anything fancy or fussy. In fact, here are three joinery options that can be cut entirely on the table saw.

RABBET. One simple, utilitarian drawer joint that you can use is the rabbet joint (top drawing at right). Here, the sides fit in rabbets cut in each end of the drawer front.

The problem with this joint is that it has poor gluing strength. To overcome this, it's a good idea to reinforce it with nails, screws, or dowels. So I typically use this joint only on very small drawers or for utility and shop drawers.

TONGUE AND DADO. Another joinery option is to create a dado in the drawer sides and a tongue on each end of the drawer front. This tongue and dado joint creates a mechanical connection that reinforces the glue joint, as illustrated in the middle drawing.

You'll notice that I keep the dado pretty narrow — just a saw kerf. This leaves enough meat in front of the dado so that this short-grain section won't pop off.

There's one other thing about this joint that's worth mentioning. The layout of the joint leaves the ends of the drawer sides (and groove for the drawer bottom) exposed. To conceal them, you'll need to add a separate false front. This adds extra material and weight to the drawer.

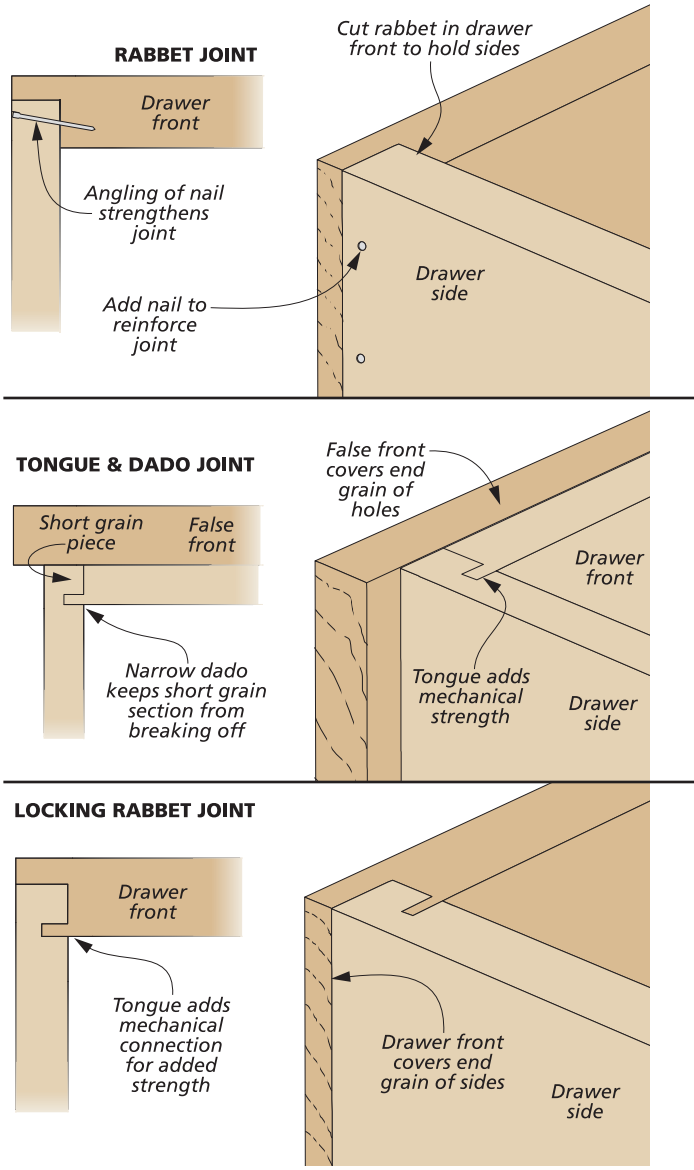
Still, I like to use this joint when I need drawer fronts that overlay the drawer opening or to cover up metal drawer slides.

LOCKING RABBET. The final joint to look at is the one I turn to most often for furniture projects. As you can see in the lower right drawing, it looks like a combination of the rabbet and tongue and dado joints.

The sides are recessed into the one-piece drawer front. And there's a tongue and dado for a mechanical connection. Even though all the glue surfaces are end grain, when they're combined with the locking tongue and rabbet, they add up to a strong joint.

The weakness of this joint is the added time it takes to cut it. But once you're set up, it's a breeze. And the results can't be beat.

The locking rabbet can even be modified to make a lipped drawer. You can learn more about this variation in the box below. W

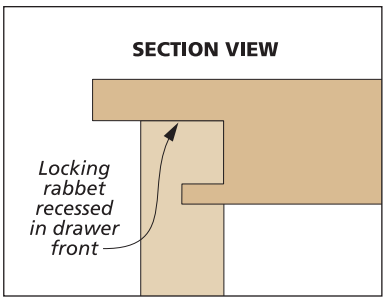

RABBET JOINT
Drawer front
Angling of nail strengthens joint
Add nail to reinforce joint
Cut rabbet in drawer front to hold sides
Drawer side
TONGUE & DADO JOINT
Short grain piece
False front
Narrow dado keeps short grain section from breaking off
False front covers end grain of holes
Drawer front
Tongue adds mechanical strength
Drawer side
LOCKING RABBET JOINT
Drawer front
Tongue adds mechanical connection for added strength
Drawer front covers end grain of sides
Drawer side

A Closer Look: Lipped Locking Rabbet

The joints shown above work great for flush fit drawers. But on some projects, like the cabinet shown below, I like to use a lipped, overlay drawer.

The overlay conceals the gaps around the drawers and provides a different look to a project and acts as a stop, see right photo below. Although you could use the tongue and dado joint with a false front, I chose to use a variation of the locking rabbet joint. By using a one-piece drawer front, you end up with a stronger joint and a thinner overlay, see left photo and the drawing.

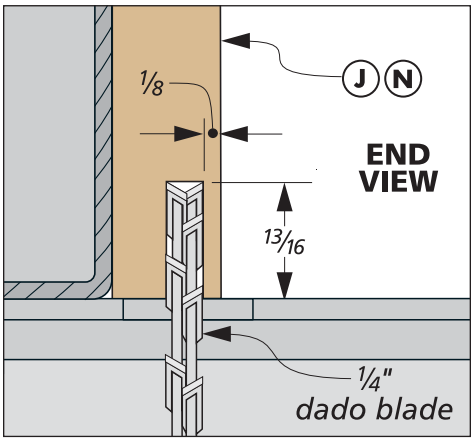
Cutting this joint isn't a whole lot different from cutting a regular locking rabbet. On page 3, you'll find the step-by-step process I used to cut this joint at the table saw.



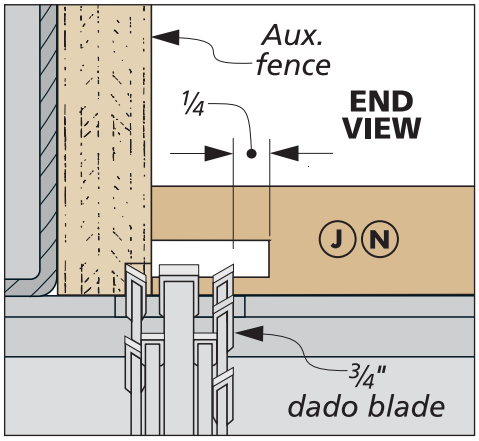
Lipped Front. To create a different look for the drawer, the drawer sides are set in deep rabbets.

©2006 August Home Publishing Company
All rights reserved

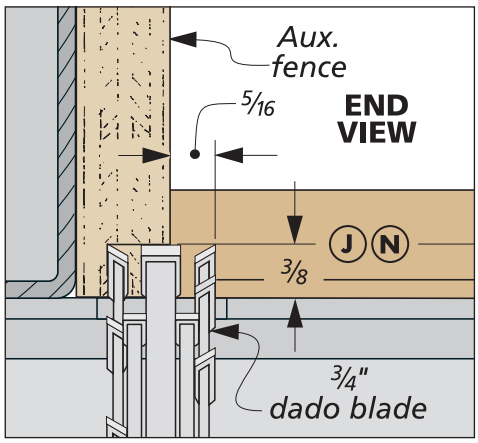
How-To: Lipped Locking Rabbet



Cut the Deep Dado. With the drawer face on end, and the dado blade set to ¼" width,cut the dado to a depth of 13/16".



Form the Tenon. With an auxiliary fence installed and the dado widened to expose 9/16", trim the tenon to length.



Rabbet the Top and Bottom. With 5/16" of the blade exposed, complete the rabbet along the top and bottom edges.

©2006 August Home Publishing Company
All rights reserved